

Appl. No. 09/751,334
Amdt. Dated 02/15/2004
Reply to Office Action of 5/28/2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1-16. (Cancelled).

1 17. (Currently Amended) ~~In a wireless network system comprising a wired~~
2 ~~backbone network, an access point, and one or more associated wireless units coupled to~~
3 ~~the access point by way of a wireless transmission medium, a method of wireless~~
4 ~~communication of enabling request to send (RTS) and clear to send (CTS) data transmission~~
5 ~~in said one or more wireless units, comprising:~~
6 transmitting a message to ~~said one or more wireless units, said message having~~
7 ~~including (i) a first control data that causes said one or more wireless units to implement~~
8 ~~enable request to send (RTS) and clear to send (RTS/CTS) data transmissions in transmitting~~
9 ~~data packets to said an access point, and (ii) a second control data that causes said one or~~
10 ~~more wireless units to automatically adjust a fragmentation threshold in response to changes~~
11 ~~within the wireless transmission medium independent of whether or not RTS/CTS data~~
12 ~~transmissions are used; and~~
13 ~~measuring a transmission error factor and continuing to adjusting the fragmentation~~
14 ~~threshold in accordance with said measured transmission error factor based on a measured~~
15 ~~transmission error factor.~~

1 18. (Original) The method of claim 17, wherein said message comprises a
2 multicast data packet intended for said one or more associated wireless units.

1 19. (Currently Amended) The method of claim 17, wherein said ~~message further~~
2 ~~includes a second control data of said message that causes said one or more wireless units to~~
3 ~~implement fragmentation threshold in transmitting data packets to said access point includes~~
4 ~~a current fragmentation threshold being determined by the access point (i) comparing the~~
5 ~~transmission error factor to an upper threshold and reducing a prior fragmentation threshold~~
6 ~~to the current fragmentation threshold if the transmission error factor is greater than the upper~~
7 ~~threshold and (ii) comparing the transmission error factor to a lower threshold and increasing~~

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8 the prior fragmentation threshold to the current fragmentation threshold if the transmission
9 error factor is less than the lower threshold.

1 20. (Currently Amended) The method of claim 19, wherein the current
2 fragmentation threshold is determined by dividing a maximum fragmentation threshold by a
3 divisional factor, the divisional factor is decremented when the transmission error factor is
4 greater than the upper threshold, is incremented when the transmission error factor is less
5 than the lower threshold and remains constant when the transmission error factor is less than
6 the upper threshold and greater than the lower threshold ~~said message further includes a~~
7 ~~specified fragmentation threshold to be used by said one or more wireless units.~~

1 21. (Currently Amended) An access point having a logic circuit to transmit a
2 message to one or more associated wireless unit, wherein said message includes (i) a first
3 control data that causes said one or more associated wireless units to ~~implement enable~~
4 request to send (RTS) and clear to send (RTS/CTS) data transmissions in transmitting data
5 packets to said access point, and (ii) a second control data that causes said one or more
6 associated wireless units to automatically adjust a fragmentation threshold in response to
7 changes within the wireless transmission medium independent of whether or not RTS/CTS
8 data transmissions are used, said logic circuit being operable to continue to adjust the
9 fragmentation threshold through subsequent messages based on a measured transmission
10 error factor.

1 22. (Original) The access point of claim 21, wherein said message comprises a
2 multicast data packet intended for said one or more associated wireless units.

1 23. (Currently Amended) The access point of claim 21, wherein said message
2 further includes ~~said a second control data that causes said one or more wireless units to~~
3 ~~implement fragmentation threshold in transmitting data packets to said access point~~ includes
4 a current fragmentation threshold being determined by the access point (i) comparing the
5 transmission error factor to an upper threshold and reducing a prior fragmentation threshold
6 to the current fragmentation threshold if the transmission error factor is greater than the upper
7 threshold and (ii) comparing the transmission error factor to a lower threshold and increasing
8 the prior fragmentation threshold to the current fragmentation threshold if the transmission
9 error factor is less than the lower threshold.

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1 24. (Currently Amended) The access point of claim 23, wherein the current
2 fragmentation threshold is determined by dividing a maximum fragmentation threshold by a
3 divisional factor, the divisional factor is decremented when the transmission error factor is
4 greater than the upper threshold, is incremented when the transmission error factor is less
5 than the lower threshold and remains constant when the transmission error factor is less than
6 the upper threshold and greater than the lower threshold ~~said message further includes a~~
7 ~~specified fragmentation threshold to be used by said one or more wireless units.~~

1 25. (Currently Amended) A machine readable medium including a software
2 routine to control a logic circuit to transmit a message to one or more associated wireless
3 unit, wherein said message includes (i) a first control data that causes said logic circuit to
4 ~~implement enable request to send (RTS) and clear to send (RTS/CTS) data transmissions in~~
5 transmitting data packets to said access point, and (ii) a second control data that causes said
6 one or more associated wireless units to automatically adjust a fragmentation threshold in
7 response to changes within the wireless transmission medium independent of whether or not
8 RTS/CTS data transmissions are used and continue to adjust the fragmentation threshold
9 based on a measured transmission error factor and continue to adjust the fragmentation
10 threshold based on a measured transmission error factor.

1 26. (Original) The machine readable medium of claim 25, wherein said message
2 comprises a multicast data packet intended for said one or more associated wireless units.

1 27. (Currently Amended) The machine readable medium of claim 25, wherein
2 ~~said message further includes a second control data~~ of said message includes a current
3 fragmentation threshold being determined by the access point (i) comparing the transmission
4 error factor to an upper threshold and reducing a prior fragmentation threshold to the current
5 fragmentation threshold if the transmission error factor is greater than the upper threshold and
6 (ii) comparing the transmission error factor to a lower threshold and increasing the prior
7 fragmentation threshold to the current fragmentation threshold if the transmission error factor
8 is less than the lower threshold ~~that causes said one or more wireless units to implement~~
9 ~~fragmentation threshold in transmitting data packets to said access point.~~

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1 28. (Currently Amended) The machine readable medium of claim 27, wherein the
2 current fragmentation threshold is determined by dividing a maximum fragmentation
3 threshold by a divisional factor, the divisional factor is decremented when the transmission
4 error factor is greater than the upper threshold, is incremented when the transmission error
5 factor is less than the lower threshold and remains constant when the transmission error
6 factor is less than the upper threshold and greater than the lower threshold~~said message~~
7 ~~further includes a specified fragmentation threshold to be used by said one or more wireless~~
8 ~~units.~~

1 29. (Currently Amended) A wireless unit, comprising:
2 a wireless transceiver to communicate with an access point via a wireless
3 transmission medium; and
4 a logic circuit to receive a message from said access point by way of said wireless
5 transceiver, wherein said message includes (i) a first control data that causes a request to send
6 (RTS) and clear to send ~~said one or more associated wireless units use request to send~~
7 (RTS/CTS) and clear to send (CTS) in the transmission of data to said access point, and (ii) a
8 second control data that causes automatic adjustment of a fragmentation threshold supported
9 by said wireless unit in response to changes within the wireless transmission medium and
10 independent of whether or not RTS/CTS data transmissions are used, said logic circuit to
11 continue to adjust said fragmentation threshold through subsequent messages based on a
12 measured transmission error factor.

1 30. (Original) The wireless unit of claim 29, wherein said message comprises a
2 multicast data packet.

1 31. (Currently Amended) The wireless unit of claim 29, wherein said message
2 ~~further includes a second control data of~~ said message includes a current fragmentation
3 threshold being determined by after said access point (i) compares said transmission error
4 factor to an upper threshold and reduces a prior fragmentation threshold to the current
5 fragmentation threshold if the transmission error factor is greater than the upper threshold and
6 (ii) compares the transmission error factor to a lower threshold and increases the prior
7 fragmentation threshold to the current fragmentation threshold if the transmission error factor

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8 ~~is less than the lower threshold that causes said logic circuit to implement fragmentation~~
9 ~~threshold in transmitting data packets to said access point.~~

1 32. (Currently Amended) The wireless unit of claim ~~34~~29, wherein said second
2 control data including a reduced fragmentation threshold provided in real-time in response to
3 a change in the wireless transmission medium due to an increase in RF interference message
4 further includes a specified fragmentation threshold to be used by said logic circuit in
5 implementing fragmentation threshold.

1 33-40. (Cancelled).

1 41. (Currently Amended) An access point having a logic circuit to transmit a
2 message to one or more associated wireless unit, said message includes a first control data
3 that causes said one or more associated wireless units to ~~implement~~ adjust a fragmentation
4 threshold in transmitting data packets to said access point and a second control data that
5 causes said one or more wireless units to use request to send (RTS) and clear to send (CTS)
6 in the transmission of data to said access point, said logic circuit to adjust of the
7 fragmentation threshold being independent of whether or not the RTS and CTS are used in
8 the data transmissions and to continue to adjust the fragmentation threshold through
9 subsequent messages based on a measured transmission error factor.

1 42. (Previously Presented) The access point of claim 41, wherein said message is
2 a multicast data packet intended for said one or more wireless units.

1 43. (Previously Presented) The access point of claim 41, wherein said message
2 further includes a specified fragmentation threshold to be used by said one or more wireless
3 units.

1 44. (Currently Amended) A machine readable medium including a software
2 routine executed to control a logic circuit to transmit a message to one or more associated
3 wireless unit, said message includes (i) a first control data that causes said one or more
4 associated wireless units to use request to send (RTS) and clear to send (CTS) in the
5 transmission of data to an access point, and (ii) a second control data that causes automatic
6 adjustment of a fragmentation threshold supported by said wireless unit in response to

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- 7 changes within the wireless transmission medium and independent of whether or not
8 RTS/CTS data transmissions are used, said logic circuit to continue to adjust said
9 fragmentation threshold through subsequent messages based on a measured transmission
10 error factor.

1 45. (Previously Presented) The machine readable medium of claim 44, wherein
2 said message further includes a second control data that causes said one or more associated
3 wireless units to implement fragmentation threshold in transmitting data packets to said
4 access point.

1 46. (Previously Presented) The machine readable medium of claim 45, wherein
2 said message further includes a specified fragmentation threshold to be used by said one or
3 more associated wireless units.